

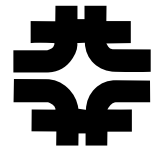
Environment, Safety & Health

William Griffing

Fermilab

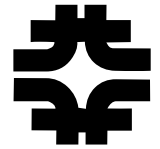
March 16, 2004

Mission of ES&H Section



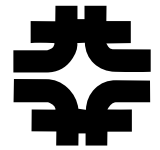
- To provide centralized, cost-effective ES&H, emergency and security services for the entire laboratory & user population.
- To provide oversight and assurance to the Director that Fermilab is meeting its ES&H and security contractual obligations for all operational and construction activities.
- To support line managers and their staffs with additional services or manpower, when necessary.

What we do



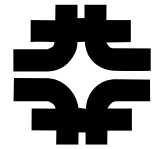
- Provide senior ES&H & Security expertise
- Facilitate all lab-wide ES&H committees
- Serve as POC with DOE & other agencies on all ES&H & Security matters
- Fuel the ES&H Self Assessment engine
- Track lab-wide ES&H performance
- Maintain FESHM (“safety manual”) & RADCON
- Provide database tools to line
- Maintain primary ES&H & Security archives

What we do (cont'd)



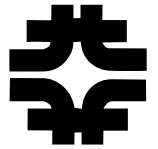
- We provide centralized ES&H services:
 - Fire Department
 - Security Department with contract guard service
 - Waste Management
 - Radiation Badge Monitoring
 - Environmental Permitting & Monitoring
 - Radioactivity Analysis Laboratory
 - ES&H Instrument Fabrication, Calibration & Maint.
 - Medical Department
 - Major Construction Oversight
 - Emergency Planning

Organizational Structure



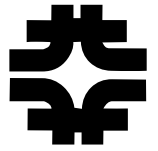
- ES&H Department
- Radiological Protection Department
- Medical & Administrative Support Department
- Security Department
- Fire Department

ES&H Department



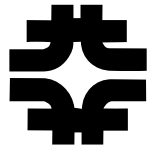
- Professionals
 - Industrial Hygiene & Safety Engineering
 - Fire Protection
 - Emergency Planning
 - Environmental Science & Hydrogeology
 - Waste Management
 - Construction Safety
- Services
 - PPE
 - ES&H Orientation & Specific ES&H Training
 - Emergency Coordination

Radiological Protection Dept.



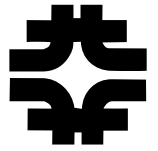
- Professionals
 - Radiation & Health Physics
 - Chemist/Lab Technician
 - Instrument technicians
- Services
 - Radiation Badge Program
 - Field Radiation Assessments
 - Shielding Assessment Verifications
 - Safety Assessment Coordination
 - Instrument fab/cal/maint
 - Radioactive analysis

Medical & Admin Support



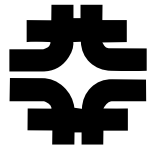
- Professionals
 - Medical staff
 - Administrative support
 - Budget analyst
 - Computer programmer
 - Project manager
- Services
 - Medical treatment, surveillance & counseling
 - Management information systems & tools
 - Records management

Security Department



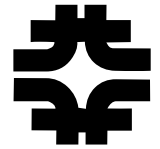
- Professionals
 - Security/Loss Control consultants
 - Locksmith
 - Dispatchers
- Services
 - Uniformed contract guard force
 - Key & ID Card, Access control systems
 - 24-hour Emergency dispatch
 - Property loss investigations
 - Crowd control & Traffic Enforcement

Fire Department



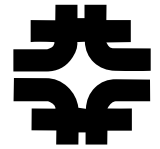
- Professionals
 - Officers & Fire Fighters
- Services
 - 24-hour emergency response for fire, injury, hazmat; Incident Command
 - Fire Prevention
 - Fire Training

Manpower strategy



- Gauge from customers what they expect from ES&H Section
- Gap analysis
 - Too much? Not enough?
- Adjust staff size & skill mix as necessary
 - Recruit & promote from within (succession planning)
 - If hire outside, hire the best we can get; look for versatility
 - Where workload varies, adjust staff size to “valley's” not “peaks.” Share resources across org. boundaries when necessary; learn to prioritize; reduce need for layoffs
 - Embrace change; streamline processes; computerize

Efficiency (without compromising effectiveness)



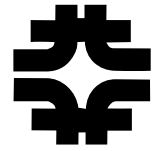
- FY96 = 103 FTE's (@\$7.1M SWF in FY04 dollars)
- FY04 = 81 FTE's (after adjusting for inflation, spending @ \$1M less today on SWF than we were in FY96)
 - Over 20% reduction in Section staffing
 - Several \$M's saved in SWF over last few years
 - ES&H staff numbers down in D/S's too
 - Providing more services today
 - Medical Dept & Construction Oversight added
 - Achieving better results
 - Injury rate in 2003 lowest in history of Lab
 - Earning reputation for excellence
 - Better cooperation between D/S's

ES&H Section Manpower



| FY04, 05 & 06 | | Monthly | | | | | | Weekly / Hourly | | | | | TOTAL |
|-----------------------|-------------------|--------------------|------------------------|------------------------|------------|------------|-------------------------|------------------------|------------|-----------------|----------------|-------------|-------------|
| | | Admin & Management | Computer Professionals | Engineering Physicists | Engineers | Scientist | Other Technical Support | Clerical & Secretarial | Drafters | Service Workers | Skilled Trades | Technicians | |
| TOTAL | | 14.0 | 1.0 | 0.0 | 2.0 | 1.0 | 21.0 | 15.0 | 0.0 | 15.0 | 1.0 | 10.6 | 80.6 |
| Experimental | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| | New Initiatives | | | | | | | | | | | | 0 |
| Theory | | | | | | | | | | | | | 0 |
| LHC Accelerator | | | | | | | | | | | | | 0 |
| Accelerator operation | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| | Run 2 | | | | | | | | | | | | 0 |
| | MiniBooNE | | | | | | | | | | | | 0 |
| | NuMI | | | | | | | | | | | | 0 |
| Accelerator R&D | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| | NLC | | | | | | | | | | | | 0 |
| | TESLA | | | | | | | | | | | | 0 |
| | FNPL | | | | | | | | | | | | 0 |
| | Muon Facilities | | | | | | | | | | | | 0 |
| | New Proton Source | | | | | | | | | | | | 0 |
| | VLHC | | | | | | | | | | | | 0 |
| Other Direct | | 4 | | | | | 0.25 | 5.1 | | | 1 | | 10.35 |
| Indirect | | 10 | 1 | 0 | 2 | 1 | 20.75 | 9.9 | 0 | 15 | 0 | 10.6 | 70.25 |

Budget Planning & Execution



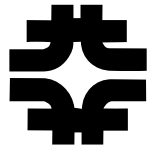
- Bottom's up planning
- Compare guidance to bottom's up estimates
- Reconcile differences with dept. managers
- Make budget presentation to Director; show how we propose to live within budget guidance; confirm priorities
- Make allocations to task numbers
- Monthly budget tracking
- Hold reserve for unexpected costs

FY04 WBS



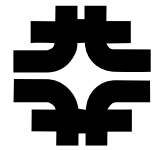
| Division/Section: | | DS - ES&H SECTION | | | | | | | |
|-------------------|-----------------------------------|-------------------|--|--|--|--|-------|-------|-------|
| DIRECT COSTS | | | | | | | FY04 | FY04 | FY04 |
| | | | | | | | SWF | M&S | TOTAL |
| 1.12 | <u>Other Support (Direct)</u> | | | | | | 595 | 1,470 | 2,065 |
| 1.12.2 | ES&H | | | | | | 595 | 1,470 | 2,065 |
| 1.12.2.4 | Security Services | | | | | | 595 | 1,470 | 2,065 |
| 1.14 | <u>Indirect Support</u> | | | | | | 5,585 | 1,097 | 6,682 |
| 1.14.1 | Management/Supervision | | | | | | 651 | 152 | 803 |
| 1.14.1.1 | Section Management | | | | | | 651 | 152 | 803 |
| 1.14.13 | Travel | | | | | | 0 | 30 | 30 |
| 1.14.17 | ES&H | | | | | | 4,934 | 915 | 5,849 |
| 1.14.17.5 | Environmental Protection Services | | | | | | 807 | 413 | 1,220 |
| 1.14.17.8 | Medical | | | | | | 412 | 75 | 487 |
| 1.14.17.13 | Emergency Services | | | | | | 225 | 2 | 227 |
| 1.14.17.14 | Fire Protection | | | | | | 1,400 | 100 | 1,500 |
| 1.14.17.15 | Radiological Protection Services | | | | | | 1,240 | 265 | 1,505 |
| 1.14.17.16 | Safety and Health Services | | | | | | 850 | 60 | 910 |
| 1.0 | TOTAL | | | | | | 6,180 | 2,567 | 8,747 |

Current Programs & Future Responsibilities

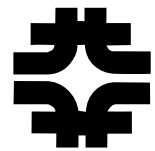


- No foreseeable changes that would significantly affect number (or skill mix) of personnel
- Construction oversight personnel can likely be reassigned
- External regulation impacts uncertain

“Risks” or Challenges



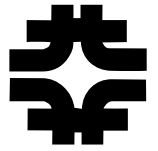
- Working deep underground – only new safety “risk” that we’ve faced recently
- Working under new security measures without significantly impacting science or alienating the public
- Maintaining progress on change in safety culture
- External regulation



Tracking Progress

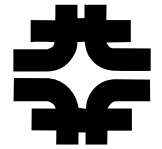
- Annual Self Assessments
 - Supplemented by mini-assessments
 - Metrics included if they make sense
- Goal setting of each work group
 - Translated to individual assignments
 - Linked to annual performance appraisals
- Goal setting done as a team
 - Priority setting
 - Problem identification & resolution

Communicating with stakeholders



- Weekly Scheduling Meeting
- Periodic Meetings with D/S Heads
- Feedback from D/S Safety Officers
- Various written publications
- Meet with DOE every other week
- Representatives at PMG's & other planning meetings

ES&H Integration



- Long-standing service processes that have been reviewed for ES&H considerations
- Incorporation of lessons-learned from prior experience here or elsewhere
- Planning & coordination meetings well in advance of work
- Receptive to feedback from within Section and from customers
- Great performance – very low injury rate in Section